OBJECTIVES: Of the many routes of drug administration, some are more acceptable to patients than others; for example when a choice is presented, patients will usually prefer an oral over an injectable medication, all else being equal. Patient preference may be expressed in terms of health and non-health-related measures, which include: health technology-related attributes (including ergonomics, ease of use, convenience), behaviour (e.g. needle phobia and patients' perceptions of treatment), and adverse reactions attributable to the route of administration. Preferences may result in process-related (dis)utility, and be revealed as (non)adherence. This review aims to examine ambulatory patients' preferences for subcutaneously administered, self-injectable medications, compared with other routes of administration for the same medicines. **METHODS:** Ten electronic databases were searched for publications published between 2002 and 2012 using terms pertaining to methods of administration, preferences and adherence. Eligibility for inclusion was determined through reference to specific criteria by two independent reviewers. **RESULTS:** Of the 1,146 papers screened, 70 met the inclusion criteria. Studies focused mainly on methods of administration for insulin and treatments of paediatric growth disorders and multiple sclerosis. Pen devices were significantly preferred to needle & syringes administration in 11 out of 12 studies – particularly with respect to ergonomics, convenience and portability; however, preferences between autoinjectors and pen devices were less pronounced. Oral administration was preferred to subcutaneous administration in 6 studies (but did not reach statistical significance), as was inhaler therapy (favoured significantly in 3 out of 4 studies). **CONCLUSIONS:** The review identified a number of studies which revealed important differences in patient preference between methods and routes of drug delivery. Further evidence is required to support the notion that preference translates to better adherence.

PIH35

THE EFFECT OF MEDICAL DEVICES WITH DOSE-MEMORY AND REMINDER FUNCTIONS ON PATIENTS' TREATMENT ADHERENCE, CONFIDENCE AND DISEASE SELF-MANAGEMENT

Hall R[1], Harald-Kongsø J[2], Humphrey L[1], Willgoss T[1]
[1]*Adelphi Values, Bollington, UK,* [2]*Novo Nordisk, Søborg, UK*

OBJECTIVES: Adherence to treatment is an important issue in the management of chronic diseases and an indicator of patients' ability to self-manage their condition. Some medical devices have been designed to help support patients' self-management and adherence by including dose-memory and reminder functions. This literature review explored the role and impact of these devices on patients' adherence to treatment, confidence and disease self-management. **METHODS:** A search of Medline, Embase and PsycInfo was performed to identify articles published in English from 2003-2013, which studied the effect of devices with memory and/or reminder functions on treatment adherence, confidence and self-management. The main attributes of the abstracts selected for inclusion and full-text review, were summarized. **RESULTS:** The database searches yielded 940 abstracts. Of the 47 meeting the inclusion criteria, 32 were retained. The articles explored the impact of memory and/or reminder devices on treatment adherence, device usability and users' (patients, health care professionals (HCPs) and caregivers) relationship and attitudes towards the devices. Devices with memory and/or reminder functions were found to improve self-reported and electronically-monitored treatment adherence in prophylactic medication use (e.g. contraceptives) and a range of chronic diseases including HIV, diabetes and asthma. Memory functions were considered valuable in disease management by patients and HCPs. Of particular value was that memory and/or reminder functions provided dose-history information, enhanced patients' confidence with, and ability to manage their medication and condition, and helped reduce forgotten or incorrect medication dosing. **CONCLUSIONS:** The incorporation of memory functions alone and in combination with reminder features in medical devices can improve patient's adherence, confidence and self-management. This can lead to improvements in disease control and clinical outcomes, thereby offering clinical and economic value. This review highlights the importance of conducting further qualitative and quantitative research in this area to fully understand the value of these types of devices to patients and HCPs.

PIH36

COMPARISON OF ELDERLY ADULTS BY NUMBER OF RX MEDICATIONS USED: RESULTS FROM THE NATIONAL HEALTH AND WELLNESS SURVEY ACROSS 5EU COUNTRIES

Annunziata K[1], Isherwood G[2], Sternbach N[1]
[1]*Kantar Health, New York, NY, USA,* [2]*Kantar Health, Epsom, Surrey, UK*

OBJECTIVES: Compliance with medications among elderly patients is particularly important, as the consequences may be quite serious. Results suggest that use of three or more medications may put a considerable burden on elderly patients and may affect their compliance. This analysis profiles elderly patients across 5EU by the number of medications currently used and their compliance related behaviors. Combination products were considered as one prescription medication. **METHODS:** Results were taken from the 2011 5EU National Health and Wellness Survey, a nationally representative, self-administered survey. Respondents were adults age 18 and over from France, Germany, Italy, Spain and UK. This analysis focuses on adults age >= 65. Physical and mental quality of life was measured using the SF12v2 scale. Activity impairment was measured using the Work Productivity and Activity Impairment scale. **RESULTS:** Out of the total sample of age >=65 (n=10,612), ~37% of elderly adults across 5EU currently use four or more prescription (Rx) medications to treat their conditions, 44% use 1-3 Rx medications, and 18% use no Rx medications. Activity impairment is greater among those using 4+ medications (38.6 vs. 22.7 vs. 16.0). Emergency room visits and hospitalizations are also higher. This group appears to be more proactive in engaging in cost-saving behaviors to alleviate some of the treatment costs in the past 6 months (30% vs 24% vs 15%) (e.g., asking for generic alternatives (19% vs 16% vs 8%), ever changing prescription to another drug (61% vs 51% vs 45%) and switching to a generic version of a prescribed drug (35% vs 27% vs 18%). **CONCLUSIONS:** Considerably higher health care costs and greater activity impairment can be seen among elderly patients using more prescription medications. Given the financial burden of using multiple medications, and the lower incomes of these patients, cost-saving methods are more frequently utilized by these patients.

PIH37

PRELIMINARY ITALIAN ARCHIVE OF EQ-5D DATA ON INDIVIDUALS FROM THE GENERAL POPULATION AND WITH DIFFERENT DISEASE CONDITIONS

Cortesi PA[1], Ciampichini R[1], Mantovani LG[2], Scalone L[3]
[1]*Charta Foundation, Milan, Italy,* [2]*Federico II University of Naples, Naples, Italy,* [3]*University of Milano - Bicocca, Monza, Italy*

OBJECTIVES: In the last 15 years our research activity collected several HRQoL data, through the EQ-5D-3L and other generic (SF-36) or condition-specific questionnaires. The objective was to assess and compare HRQoL among different population subgroups. **METHODS:** We reviewed all the HRQoL studies conducted by our research group between 1998 and 2012. We identified several conditions to be compared in terms of VAS score and utility index: these were assessed using the Italian social tariffs and then adjusted for age and sex. **RESULTS:** The archive included QoL data from 7,754 subjects (51.5% male), grouped in 29 different subgroups: type 1 and 2 diabetes mellitus, moderate to severe haemophilia, major depression, atopic dermatitis, severe and chronic hand eczema, psoriatic arthritis, schizophrenia/schizophrenic disorder, β-thalassemia major, gastroesophageal reflux, abdominal aortic aneurysm, systemic sclerosis, chronic hepatitis B, chronic hepatitis C, hepatitis from other causes, cirrhosis, hepatocellular carcinoma, liver transplant, general Italian population aged from 18 to 75 years. Overall, the subjects were aged from 14 to 96 years (mean(+SD)=55.7(+17.1), median=57.7). The adjusted EQ-5D-VAS mean+SD ranged from a minimum of 33.9+14.1 in patients with a major depression episode, to a maximum of 82.5+12.9 in patients with atopic dermatitis 8 weeks after flare. The mean+SD VAS was 73.2+11.4 in the general population. The adjusted mean+SD utility index ranged from 0.60+0.17 in psoriatic arthritis before starting treatment with biological agents, to 0.931+0.09 among chronic hepatitis B patients. **CONCLUSIONS:** The many EQ-5D data collected in the last 15 years are merged now in a unique archive that can be used to assess and compare the burden of disease in terms of HRQoL in different subpopulations. This archive is to be considered preliminary and deemed to be integrated with additional data from ongoing or future projects, and perhaps with other analogous archives created in other contexts and Countires.

PIH38

LEVEL AND FACTORS IMPACTING THE PATIENT DISSATISFACTION IN THE PRIMARY CARE VISITS BASED ON THE CROSS-SECTION MEASUREMENT – A PROSPECTIVE FINNISH STUDY

Soini EJ[1], Koskela T[2], Kangaspunta V[3], Ryynänen OP[4]
[1]*ESiOR Oy, Kuopio, Finland,* [2]*Department of General Practice, University of Tampere, Tampere, Finland,* [3]*School of Medicine, University of Tampere, Tampere, Finland,* [4]*Department of Public Health and Clinical Nutrition, University of Eastern Finland, and General Practice Unit, Kuopio University Hospital, Kuopio, Finland*

OBJECTIVES: A key dimension impacting clinical outcomes in health care evaluation is satisfaction (i.e. the level of meeting user's expectations for the service), which impact adherence and persistence. Yet, evidence regarding patient dissatisfaction is scarce. Thus, we asked what the level of dissatisfaction is after a health centre (HC) visit, and which factors impact the dissatisfaction? **METHODS:** A prospective survey to primary care patients visiting 3 Finnish HCs (Linnainmaa, Omapihlaja, Pirkkala) in Pirkanmaa district during 31.1–11.2.2011 was done. No inclusion/exclusion criteria were used. Comprehensive patient-, clinician- and HC-related data was collected. The patient's satisfaction was measured immediately after the visit in the form of handling problem during a visit (Likert range 0–10). This was inversed to assess the drawback related to the visit (0=full benefit; problem was solved; 10=no benefit; full drawback). An explorative statistical analysis was done including multivariate data mining in order to find the model with the best Akaike information criteria. The model aimed to demonstrate the independent factors impacting the drawback and control heterogeneity. **RESULTS:** A total of 90.1% of the full sample (n=647) answered to the drawback question. 40.3% of the patients had problem solved during the visit (i.e. reported 0) and just 6.9% of the patients experienced drawback exceeding 5. The factors increasing the drawback in the stepwise OLS regression model with the +1 ln-transformation for the drawback were longer waiting time, asthma/copd and male sex. The factors decreasing the drawback were patient's higher subjective health status, patient's higher subjective health status in comparison to others of same age/sex, some long-term conditions (rheumatoid disease, allergy, hip/knee joint erosion), clinician's longer experience, clinician in specialising education and certain HC. **CONCLUSIONS:** Some 60% of the patients experienced that their problem was not fully handled. Multiple factors impact the drawback which could be notified in the planning of HC services.

PIH40

MEASUREMENT OF SOCIETAL MEDICAL CARE PREFERENCES WITH THE SAME COST PER QALY: A DISCRETE CHOICE STUDY

Shiroiwa T[1], Saito S[2], Shimozuma K[3], Kodama S[4], Noto S[5], Fukuda T[1]
[1]*National Institute of Public Health, Saitama, Japan,* [2]*Okayama University, Okayama, Japan,* [3]*Ritsumeikan University, Kusatsu, Japan,* [4]*Kyoto University, Kyoto, Japan,* [5]*Niigata University of Health and Welfare, Niigata, Japan*

OBJECTIVES: The principal of QALY is sometimes referred to as "A QALY is a QALY is a QALY", which means all QALYs have the same value, while QALYs may not fully reflect public preferences. If the use of QALYs in decision making proves beneficial but insufficient, what other factors should be taken into consideration simultaneously? **METHODS:** We conducted a face-to-face survey using a discrete choice method to measure societal medical care preferences. The profiles of assumed patients consisted of the following four factors: (a) age (young or elderly patient); (b) objective of care (treatment or prevention); (c) severity of health state (severe or mild); and (d) past experience of receiving care (yes or no). These